

Claims

What is claimed is:

1 1. Apparatus for selecting one of two voltages to be output for use as
2 a power supply, the apparatus comprising:

3 a first switch means connected to a first input;

4 a second switch means connected between the first input and an output
5 and further connected to the first switch means; and

6 a third switch means connected between a second input and the output
7 and further connected to the first and second switch means;

8 wherein when a first voltage is present at the first input, the first and
9 second switches are in a conductive state and the third switch means is in a
10 nonconductive state, such that only the first voltage is provided at the output;
11 and

12 wherein when the first voltage is not present at the first input, the first
13 and second switches are in a nonconductive state and the third switch is in a
14 conductive state, such that a second voltage applied at the second input is
15 provided at the output

1 2. The apparatus of claim 1 wherein the first, second, and third
2 switch means are transistors.

1 3. The apparatus of claim 1 further comprising a voltage regulator
2 connected between the second input and the third switch means.

1 4. The apparatus of claim 1 wherein the first voltage is less than the
2 second voltage.

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1 5. The apparatus of claim 1 wherein the first voltage is +3.3 volts
2 and the second voltage is +5 volts.

1 6. The apparatus of claim 1 wherein the first voltage is +5 volts and
2 the second voltage is +3.3 volts.

9-14 1 7. An adapter card including means for selecting one and only one
2 of two voltages for use by the adapter card as a main power supply voltage, the
3 adapter card further comprising:

4 means responsive to application of a first voltage at a first input of the
5 adapter card for using the first voltage as the main power supply and
6 preventing a second voltage applied at a second input of the adapter card from
7 being used as the main power supply; and

8 means responsive to a first voltage not being applied to the first input of
9 the adapter card for using the second voltage applied to the second input as the
10 main power supply.

1 8. The adapter card of claim 7 wherein the adapter card is a PCI
2 adapter.

1 9. The adapter card of claim 7 wherein the first voltage is less than
2 the second voltage.

1 10. The adapter card of claim 7 wherein the first voltage is +3.3 volts
2 and the second voltage is +5 volts.

1 11. The adapter card of claim 7 wherein the first voltage is +5 volts
2 and the second voltage is +3.3 volts.

1 12. The adapter card of claim 7 further comprising means for
2 regulating the second voltage.

1 13. The adapter card of claim 7 wherein the means responsive to the
2 first voltage being present at the first input comprises at least one transistor.

1 14. The adapter card of claim 7 wherein the means responsive to the
2 voltage not being present at the first input comprises at least one transistor.

1 15. A computer system comprising a CPU, a power supply, and
2 memory and further comprising a plug-in adapter including a power selector
3 circuit connected to the power supply for selecting one of two power supply
4 voltages for use by the adapter as a main power supply, the power selector
5 circuit further comprising:

6 a first switch means connected to a first input for receiving a first
7 voltage from the power supply;

8 a second switch means connected between the first input and an output
9 and further connected to the first switch means, wherein a voltage at the
10 output is used as the main power supply of the adapter; and

11 a third switch means connected between a second input for receiving a
12 second voltage from the power supply and the output and further connected to
13 the first and second switch means;

14 wherein when a first voltage is present at the first input, the first and
15 second switches are in a conductive state and the third switch means is in a
16 nonconductive state, such that only the first voltage is provided at the output;
17 and

18 wherein when the first voltage is not present at the first input, the first
19 and second switches are in a nonconductive state and the third switch is in a
20 conductive state, such that a second voltage applied at the second input is
21 provided at the output.

1 16. The computer system of claim 15 wherein the first, second, and
2 third switch means are transistors.

1 17. The computer system of claim 15 wherein the power supply
2 selector further comprises a voltage regulator connected between the second
3 input and the third switch means.

1 18. The computer system of claim 15 wherein the first voltage is less
2 than the second voltage.

1 19. The computer system of claim 15 wherein the first voltage is +3.3
2 volts and the second voltage is +5 volts.

1 20. The computer system of claim 15 wherein the first voltage is +3.3
2 volts and the second voltage is +5 volts.

21. 21. A method of selecting one of two voltages to be provided at an
2 output of a power selector, the method comprising:
3 . . . determining whether a first voltage is applied at a first input of the
4 power selector;
5 if a first voltage is detected at the first input, providing the first voltage
6 at the power selector output and preventing a second voltage applied at a

7 second input of the power selector from being provided at the power selector
8 output;

9 if a first voltage is not detected at the first input, providing the second
10 voltage applied at the second input at the power selector output.

1 22. The method of claim 21 further comprising regulating the second
2 voltage.

1 23. The method of claim 21 wherein the first voltage is +5 volts and
2 the second voltage is +3.3 volts.

1 24. The method of claim 21 wherein the first voltage is +3.3 volts
2 and the second voltage is +5 volts.

1 25. Apparatus for selecting one of two voltages to be output for use as
2 a power supply, the apparatus comprising:

3 a first switch means connected to a first input;

4 a second switch means connected between the first input and an output
5 and further connected to the first switch means;

6 a third switch means connected between a second input and the output
7 and further connected to the first and second switch means; and

8 first and second pairs of user-settable jumpers;

9 wherein when the first pair of jumpers is set and a first voltage is
10 present at the first input, the first and second switches are in a conductive
11 state and the third switch means is in a nonconductive state, such that only
12 the first voltage is provided at the output;

13 wherein when the first pair of jumpers is set and the first voltage is not
14 present at the first input, the first and second switches are in a nonconductive

state and the third switch is in a conductive state, such that a second voltage applied at the second input is provided at the output;

wherein when the second pair of jumpers is set and the second voltage is present at the second input, the first and second switches are in a conductive state and the third switch means is in a nonconductive state, such that only the second voltage is provided at the output; and

wherein when the second pair of jumpers is set and the second voltage is not present at the second input, the first and second switches are in a nonconductive state and the third switch is in a conductive state, such that the first voltage applied at the first input is provided at the output.

26. The apparatus of claim 25 wherein the first, second, and third switch means are transistors.

27. The apparatus of claim 25 further comprising a voltage regulator connected between the second input and the third switch means.

28. The apparatus of claim 25 wherein the first voltage is +5 volts and the second voltage is +3.3 volts.

29. The apparatus of claim 25 wherein the first voltage is +3.3 volts and the second voltage is +5 volts.

30. A method of selecting one of two voltages to be provided at an output of a power selector, the method comprising:

determining whether a first pair of user-settable jumpers is set;
if the first pair of user-settable jumpers is set, determining whether a first voltage is applied at a first input of the power selector and if the first

6 voltage is detected at the first input, providing the first voltage at the power
7 selector output and preventing a second voltage applied at a second input of
8 the power selector from being provided at the power selector output and if the
9 first voltage is not detected at the first input, providing the second voltage
10 applied at the second input at the power selector output.

1 31. The method of claim 30 further comprising:
2 if the first pair of user-settable jumpers is not set, determining whether
3 a second pair of user-settable jumpers is set; and
4 if the second set of user-settable jumpers is set, determining whether a
5 second voltage is applied at a second input of the power selector and if the
6 second voltage is detected at the first input, providing the second voltage at the
7 power selector output and preventing a first voltage applied at a second input
8 of the power selector from being provided at the power selector output and if
9 the second voltage is not detected at the second input, providing the first
10 voltage applied at the first input at the power selector output.

1 32. The method of claim 30 further comprising regulating the second
2 voltage.

1 33. The method of claim 30 wherein the first voltage is +3.3 volts
2 and the second voltage is +5 volts.